

### REMARKS

The preceding amendments and the following remarks form a full and complete response to the Office Action dated January 9, 2009. Claims 18, 20, 22, and 24 have been amended, but no new matter has been added by the amendments. Support for the amendments can be found, *inter alia*, in original claims 1, 2 18, 20, 22, and 24, and ¶ 27 of the Specification. Accordingly, claims 1-26 remain pending and are submitted for consideration.

The Office Action objected to claims 6 and 18-23 under 37 C.F.R. § 1.75(c) for an alleged failure to further limit the subject matter of from which they depend. Applicants traverse the objection because claims 6 and 18-23 limit the claims from which they depend and comply with 37 C.F.R. § 1.75(c).

Claim 6 requires that the background of the object of value be produced according to one of the listed specific processes. As all of these specific processes are recognizable in the resulting object of value, claim 6 further limits the object of value recited in claim 5 by adding the limitation that the object of value must additionally have a background produced according to one of the specific processes (i.e., linking a substrate or with the help of a laser). Thus, the objection to claim 6 under 37 C.F.R. § 1.75(c) is improper and should be withdrawn.

With regard to claims 18-23, Applicants submit that the amendments to claims 18, 20, and 22 putting them in to independent form obviate the objections to the claims alleged failure to further limit the structure of the subject matter of their base claims.

Claims 1 and 11 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent Application Publication No. 2005/0012998 by Kumar et al. ("Kumar").

Applicants traverse the rejection because claims 1 and 11 recite subject matter not disclosed by Kumar.

Claim 1 recites an object of value with a security element. The security element has at least one liquid-crystalline material, which effects a linear polarization of light.

Claim 11 recites a security element for protecting objects of value. The security element has at least on liquid-crystalline material, which effects a linear polarization of light.

As a result, a security element is provided that can be checked easily both visually and manually independently of the temperature. Additionally, the document of value, the transfer element, and the security element should be easy to produce and should provide a high degree of protection against forgery. See Specification at ¶ 5.

Kumar discloses a liquid crystal cell. See Kumar at ¶ 0027 and claim 191. The cell has a first substrate with a first surface and a second substrate having a second surface. *Id.* The second surface of the second substrate is positioned opposite and spaced apart from the first surface of the first substrate so as to define a region. *Id.* The liquid crystal cell also includes a liquid crystal material adapted to be at least partially ordered and at least one thermally reversible photochromic-dichroic compound adapted to be at least partially aligned and having an average absorption ratio greater than 2.3 in an activated state as determined according to CELL METHOD positioned within the region defined by the first surface and the second surface. *Id.* Kumar, however, fails to disclose each and every feature of claims 1 and 11.

Kumar fails to disclose a security element having a linearly polarizing liquid crystalline material, as claim 1 requires. The Office Action asserts that Kumar discloses

this feature in claim 191, but this portion of Kumar fails to disclose this feature. Instead, claim 191 recites a liquid crystalline cell that comprises a liquid crystalline material and at least one thermally reversible photochromic-dichroic compound, which is different from the liquid crystalline material. See Kumar at claim 191. In Kumar's cell, linear polarization is not caused by the liquid crystalline material as claim 1 requires.

Accordingly, Kumar fails to disclose each and every feature of claim 1. Applicants, therefore, respectfully request withdrawal of the rejection of claim 1.

Claim 11, similarly to claim 1, also recites liquid-crystalline material that effects a linear polarization of light. For the same reasons stated above with respect to claim 1, Kumar fails to disclose this feature of claim 11. Accordingly, Kumar fails to disclose each and every feature of claim 11. Applicants, therefore, respectfully request the withdrawal of the rejection of claim 11.

Claims 3-10, 13-14, and 16-25 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kumar in view of "well-known art." Applicants traverse the rejection because claims 3-10, 13-14, and 16-25 recite subject matter neither disclosed nor suggested by Kumar.

For instance, claims 3-10 depend from claim 1. As stated above, Kumar fails to disclose each and every feature of claim 1. Furthermore, the Office Action's citation of "well known art" in general does nothing to remedy the deficiencies of Kumar with respect to claim 1. Applicants submit, therefore, that the combination of Kumar and the ill-defined "well known art" fails to disclose or suggest each and every feature of claim 1 and claims 3-10, which depend from claim 1. Similarly, claims 13-14, 16-17, and 25-26 depend from claim 11. As discussed above Kumar fails to disclose each and every

feature of claim 11. The “well known art” fails to remedy the deficiencies of Kumar with respect to claim 11. Applicants submit, therefore, that the combination of Kumar and “well known art” fails to disclose or suggest each and every feature of claim 11 and claims 13-14, 16-17, and 25-26.

Claim 18 recites a transfer material for producing a security element. The transfer material has a carrier material on which is disposed at least one liquid-crystalline material, which effects a linear polarization of light. The liquid crystalline material is formed by a lyotropic liquid crystal.

Claim 20 recites a method for producing an object of value or security element. According to the method, a substrate is provided. Onto the substrate, at least one lyotropic liquid crystalline material is applied, which is configured to effect a linear polarization of light.

Claim 22 recites a method for testing an object of value. According to the method, it is checked whether: light is linearly polarized; the light has a color effect; or a depolarization of at least one of the polarized light or a not taking place of the color effect occurs when the light passes through the bank note substrate.

The Office Action admits that Kumar fails to disclose each and every feature of claims 18, 20, and 22. See Office Action at 5. Instead, the Office Action alleges that “it would have taken only ordinary engineering experience and/or techniques well-known in the art to incorporate the [limitations of claims 18, 20, and 22] into Kumar’s teachings to modify Kumar’s teachings for alternate usability.” *Id.* Applicants submit, however, that claims 18, 20, and 22 recite novel and non-obvious features. For instance, claim 18 recites a transfer material having a carrier material on which is disposed at least one

liquid-crystalline material, wherein the liquid crystalline material is formed by a lyotropic liquid crystal, and wherein the liquid-crystalline material effects a linear polarization of light. Claim 20 recites applying at least one lyotropic liquid-crystalline material onto a substrate, wherein said lyotropic liquid crystalline material is configured to effect a linear polarization of light. As discussed above with respect to claims 1 and 11, Kumar simply fails to disclose liquid crystalline material (lyotropic or not) that effects linear polarization of light. Indeed, claims 18 and 20 recite similar features to that of claim 2, which the Office Action has indicated is allowable. See Office Action at 5. Claim 22 recites checking whether (a) light is linearly polarized; (b) light has a color effect; or (c) a depolarization of at least one of the polarized light or a not taking place of the color effect occurs when the light passes through the bank note substrate. The Office has cited no art that discloses or suggests these features nor has the Office substantiated its claims that these features would have taken only ordinary engineering expedience and/or techniques well-known in the art to incorporate them into Kumar's teachings to modify Kumar's teaching for alternate usability. Applicants, therefore, submit that these features are non-obvious and can only be reached through the use of impermissible hindsight reasoning. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 18, 20, and 22. Dependent claims 19, 21, and 23 are patentable as depending from patentable base claims as well as for the additional features they recite.

### CONCLUSION

In view of the above, all objections and rejections have been sufficiently addressed. Applicants submit that the application is now in condition for allowance and request that the Office allow claims 1-26 and pass this application to issue.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Respectfully submitted,

Date: April 8, 2009

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